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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,133	12/14/2004	Byung-Hoon Ryou	I-214	5262
802	7590	12/13/2005	EXAMINER	
DELLETT & WALTERS P. O. BOX 82788 PORTLAND, OR 97282-0788			A, MINH D	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/518,133

Applicant(s)

RYOU ET AL.

Examiner

Minh D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/14/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 8-11, 13, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 7, 12 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/14/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**,DETAILED ACTION**

**Claim Rejections - 35 USC § 102(Look5,945,964)**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 8, 10-11,13, 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hope (US 6,075,488).

Regarding claim 1, Hope discloses a dual band stub antenna comprising: a first step in which a connector (34 or 68) is formed by forming threads on an outer surface of a cylindrical having a metallic rod certain length and a certain diameter; a second step in which a connection member(20) is formed in such a manner that a certain space transformer at a portion near a processed portion formed as has an impedance (capacitor)a center passes through and the connector(34 or 68); a third step in which a spiral first helical antenna(30 or 64) is formed from an end of the connection member (20) distanced by a certain interval from the space formed the connection member (20); a fourth step in which a dielectric (62) is provided to surround the connection member in such a manner that said dielectric(62) is exposed from the portions member that helical antenna(30 or 34) formed in the third step, is inserted into an inner side of the first has a passed through center and a certain space, antenna are getting started to be formed; and the first helical that the connection fifth step in which a covering member (26 or

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sleeve) is insert molded on an outer surface of the first helical antenna (33 or 64). See figures 1a-7, col.2, lines 60-67 to col.5, lines 1-67.

Regarding claims 3 and 5, Hope discloses a second helical antenna installed at an inner side of the dielectric formed in the fourth step before the covering member is insert-molded. See figure 7.

Regarding claim 8, Hope discloses the covering member formed by the insert molding method is formed in a shape of a cap. See figures 2 and 6.

Regarding claims 10 and 13, Hope discloses a multiple bands type antenna comprising a connector having threads on its outer surface; a circular plate formed on an upper surface of the connector; a connection member that is formed on an upper surface of the circular plate and has a space forming an impedance transformer; a first helical antenna formed at an end of the connection member wherein said first helical antenna is integrally formed cylindrical metallic rod; a dielectric having a center passing an inner side of the first helical antenna and an outer side of the based on a cutting process of a connection member; and a covering member insert-molded on an outer surface of the first helical antenna. See figures 1a-7, col.2, lines 60-67 to col.5, lines 1-67.

Regarding claim 11, Hope discloses a second helical antenna that has one end connected with the circular plate and a free end formed at the other end of the same and is installed at an inner side of the dielectric. See figures 1A-7.

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Regarding claim 15, Hope discloses wherein a coating layer formed of a dielectric is formed on an outer surface of the second helical antenna installed at an inner side of the first helical antenna. See col.2, lines 60-67 to col.5, lines 1-67.

Regarding claim 16, Hope discloses wherein said first helical antenna has a cross section of a plate shape. See figures 1A-7.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Hope (US 6,075,488).

Regarding claims 2 and 9, Hope essentially discloses the claimed invention but does not explicitly disclose that the wherein in a process that the third step is performed after the second step, said second step is performed after the third step is performed or an available frequency range is adjusted by adjusting the size of space.

It would have been an obvious matter of design choice to employ Hope in any desired interest steps or a size range in order to maximize the usage of his invention, since applicant does not disclose that, all of these limitations can solve any stated

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problem and for any particular purpose. Therefore, it appears that the invention would not provide any improvement but merely apply the invention in different presentation.

***Allowable Subject Matter***

5. Claims 4, 6-7, 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Prior art does not teach that, a whip antenna passing through a center is installed after the second helical antenna is installed and the covering member is insert molded or a whip antenna is installed at an assembly formed after the covering member is inserted molded or a third helical antenna installed at the end of one side of the whip antenna recited in dependent claims 4, 6, 12 and 14.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sutter et al (US 6,262,693) and Marthinsson et al (US 6,057,807) are cited to show a antenna assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for

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Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

Primary Examiner

A handwritten signature in black ink, appearing to read "Vinhwood", followed by a long horizontal line extending to the right.

Examiner

Minh A

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12/11/05